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# NUMMI

*A California Company*



California has become widely recognized for its innovation automotive design centers. Virtually every major auto manufacturer in the world has such a facility in the state. In addition, California has a large and established parts and accessory industry. Surprisingly, what is much less known is that California is also a manufacturer of automobiles and trucks.

New United Motor Manufacturing Inc. (NUMMI) of Fremont California is the only car and truck manufacturing facility west of the Rocky Mountains. The plant covers about 5.3 million square feet, on 211 acres, and employs about 5,000 people in two shifts. The metal stamping plant converts almost one million pounds of steel daily into various automobile parts. Plastic molds weighing 20 to 30 tons each are used with presses, producing thousands of tons of pressure, to make bumpers and other plastic parts. In total, more than 3,000 pieces of metal and plastic are assembled together to produce a new vehicle. One car is produced every 60 seconds, and one pickup about every 85 seconds.

NUMMI was a former General Motors (GM) plant that closed in 1982. (A neighboring Ford plant in Richmond, California, also closed in the early 1980s.) In 1983, Toyota and GM signed a Memorandum of Understanding for their joint manufacturing venture. The next year NUMMI became an independent California corporation, and GM President Roger Smith and Toyota President Eiji Toyoda dedicated the construction of the metal stamping plant. Soon thereafter the plant started producing Chevrolet Novas. In 1986, the Toyota FX was also produced. By 1988, the GEO/Chevrolet Prizm and Toyota Corolla were added. In 1991, the Toyota truck was introduced.

Today, the plant makes four cars: the Toyota Tacoma pickup; the Toyota Corolla; the Pontiac Vibe sports wagon; and the Toyota Voltz sports wagon, a right-hand drive version of the Vibe built for export to Japan. The Vibe uses a Corolla frame, and a Corolla engine. The same car, the Toyota Matrix, is made at another Corolla plant in Canada. Production of the Chevy Prizm was stopped in December 2001; however, it took only about 8 to 10 days to change production from the Prizm to the Vibe -- a very short time by industry standards. Increasingly strict emission requirements have GM and Toyota currently researching alternative fuel vehicles.

The joint venture between GM and Toyota offers advantages to both firms. Toyota is able to test and refine its production system in the United States, while GM is able to build small high quality cars using that system. The Toyota system at use at NUMMI is patterned after the Toyota Production System. Three production concepts form the basis of the system: just-in-time production that matches products to sales; *jidoka*, the idea that problems should not be passed along the assembly line; and full use of NUMMI "team members" in solving problems and making decisions.

The assembly process consists of a variety of activities, including metal stamping, plastic molding, body construction and welding, painting, and metal and plastic assembly. Production-related activities include quality control and production control, such as parts management and planning and scheduling.

The economic impact of the plant is significant. NUMMI is one of the largest integrated manufacturing plants in CA. According to NUMMI, the company's total investment exceeds \$2.2 billion. (In 2000, for example, NUMI constructed a new \$47 million stamping line.) The manufacturing plant has a production capacity of about 220,000 cars and 150,000 trucks a year.

The company's annual purchases and payroll in California are approximately \$1 billion. More than 2,600 North American suppliers provide parts and services for NUMMI production, creating a total of \$1.8 billion annually in North American purchases. (About 375 are direct suppliers.) The total number of jobs supported by NUMMI, including its own workforce, exceeds 40,000 nationwide. California subsidiary locations for NUMMI are in Long Beach and Torrance. Branch locations are in Santee, Westlake Village, Sante Fe Springs, Fresno, Hayward, Sacramento, Torrance, and Fresno.

The United Auto Workers (UAW) is the bargaining agent for NUMMI employees. The first collective bargaining agreement between NUMMI and the UAW was signed in June 1985. The UAW agreed to accept Toyota production methods and work to improve manufacturing productivity and quality. In turn, NUMMI pays U.S. auto industry wages and benefits, and provides job security, unless the financial viability of the company would be threatened. (NUMMI has had no employee layoffs.) The UAW represents about 4,100 NUMMI employees; the remaining 900 are salaried employees.

NUMMI is innovative in bringing education to its workers. In association with Ohlone College of Fremont, California, NUMMI employees can take classes on-site. In addition to working towards an Associate of Arts degree, employees can take credit and not-for-credit courses to upgrade skills, increase their overall education, or work towards a transfer to a four-year college.

Like many power users, NUMMI has been affected by energy supply and costs in recent years. However, the company is also helping the state avoid future power disruptions. Electricity costs were about \$1 million per month before the energy crisis, and are now about \$1.5 million per month. The manufacturing facility is not hooked up to the grid, but has arrangements for direct access to power plants. The company is notified when there is an imminent need to reduce electricity use, and then makes the needed reduction. The reduction is achieved by shutting down usages that are not essential to the production line. NUMMI has never shut down due to electricity supply problems.

*For information from NUMMI, see <http://www.nummi.com/>.*